



First annual magazine of Green Galaxy.

# GREEN MAGAZINE 2015

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<http://www.thegreengalaxy.blogspot.com/>  
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## *About Green Galaxy*

Actually Green Galaxy is a project of an organization "The Galaxy of Life" but it works as a separate organization for environmental causes. In short, our main aims are to reduce pollution, reduce carbon emissions, increase tree plantation to reduce global warming. We are trying to tell people about the increasing levels of pollution and urge them to work for the environment. We try to convince people to plant more and more trees by explaining the benefits of trees.

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# Introduction

Green Galaxy is an organization with an aim to make this planet a beautiful place to live. Before September 2015, we worked at a small level such as in school. After 2015, we named our organization as Green Galaxy and started setting some aims and objectives. We started making the working body of organization. We decided to convey messages to people about global warming and deforestation and there consequences. We decided to publish a magazine annually to explain these things. This is our first magazine that will be published over internet. Currently we do not have so much resources, friends or volunteers or members. But we believe that one day we shall be successful. This magazine is a humble effort to make our voice reach more and more people.

## *Do you know what pollution is?*

Pollution is the introduction of the contaminants into the natural environment that causes adverse change. There are various forms of pollution. It may be air pollution, water pollution, noise pollution, plastic pollution or land pollution. It is one of the greatest problems that the world is facing today.

- ❖ Main sources of air pollution are the motor vehicles and industries. Burning of wood, forest fires and various other ways also contribute to air pollution. Common gaseous pollutants include carbon monoxide, Sulphur dioxide, chlorofluorocarbons and nitrogen oxides.
- ❖ Water pollution occurs by the discharge of waste water from the commercial and industrial waste (intentionally or through spills) into surface waters, discharges of untreated domestic sewage and chemical contaminants, such as chlorine, from treated sewage; release of waste and contaminants into surface runoff flowing to surface waters ( including urban runoff and agricultural runoff, which may contain chemical fertilizers and pesticides ); waste disposal and leaching into ground water; eutrophication and littering.
- ❖ Plastic pollution involves the accumulation of plastic products in the environment that adversely affects the wildlife, wildlife habitat or humans. The use of plastic bags has increased beyond the limit. It is one of the major pollutants.
- ❖ Land or soil pollution occurs when chemicals are released by spill or underground leakage. Among the most significant soil contaminants are herbicides, pesticides, heavy metals, hydrocarbons and many other.

# *Global Warming (Causes and Impacts)*

Global Warming means the increase in Earth's average surface temperature due to the effects of rising levels of greenhouse gases, such as carbon dioxide emissions from deforestation or from burning of fossil fuels. It traps heat that would otherwise escape from earth.

## ❖ Effect of human activity on climate

If we see Earth from space, then it is observed that the principle part of atmosphere is only about as thick as the skin of an onion. It makes easy to suppose that human activities can change the climate that is mostly affected by the first 6 miles or so of the atmosphere.

## ❖ What are the greenhouse gases?

The most significant greenhouse gas is actually water vapor. However even slight increases in atmospheric levels of carbon dioxide can cause a substantial increase in temperature.

## ❖ Increase in Atmospheric CO<sub>2</sub> concentration

Human beings have increased the CO<sub>2</sub> concentration in the atmosphere by about thirty percent, which is an extremely significant increase. Combustion of fossil fuels, for electricity generation, transportation, and heating, and also the manufacture of cement, all result in the total worldwide emission of about 22 billion tons of carbon dioxide to the atmosphere each year.

(Source: <http://www.nmsea.org>)

## Impacts of Global Warming

Some main impacts of global warming are listed below:

- ❖ **Rising Seas**--- inundation of fresh water marshlands (the everglades), low-lying cities, and islands with seawater.
- ❖ **Changes in rainfall patterns** --- droughts and fires in some areas, flooding in other areas.
- ❖ **Increased likelihood of extreme events**--- such as flooding, hurricanes, etc.
- ❖ **Melting of the ice caps** --- loss of habitat near the poles. Polar bears are now thought to be greatly endangered by the shortening of their feeding season due to dwindling ice packs.
- ❖ **Melting glaciers** - significant melting of old glaciers is already observed.
- ❖ **Widespread vanishing of animal populations** --- following widespread habitat loss.
- ❖ **Spread of disease** --- migration of diseases such as malaria to new, now warmer, regions.
- ❖ **Bleaching of Coral Reefs due to warming seas and acidification due to carbonic acid formation** --- *One third* of coral reefs now appear to have been severely damaged by warming seas.
- ❖ **Loss of Plankton due to warming seas** --- The enormous (900 mile long) Aleution island ecosystems of orcas (killer whales), sea lions, sea otters, sea urchins, kelp beds, and fish populations, appears to have collapsed due to loss of plankton, leading to loss of sea lions, leading orcas to eat too many sea otters, leading to urchin explosions, leading to loss of kelp beds and their associated fish populations.

(Source: <http://www.nmsea.org>)



## *Deforestation (Causes and Impacts)*

Deforestation is the permanent destruction of forests in order to make the land available for other uses. An estimated 18 million acres of forest are lost each year according to United Nations' Food and Agriculture Organization.

❖ Causes of Deforestation: There are many causes of deforestation. The WWF reports that half of the trees illegally removed from forests are used as fuel. Some other common reasons are:

- ★ To make more land available for housing and urbanization.
- ★ To harvest timber to create commercial items such as paper, furniture and homes.
- ★ To create ingredients that are highly prized consumer items, such as the oil from palm trees.
- ★ To create room for cattle ranching.

Common methods of deforestation are burning trees and clear cutting. These tactics leave the land completely barren and are controversial practices.

❖ Impacts of Deforestation:

- ★ **Climate Change:** Deforestation is considered to be the contributing factors to climate change. The deforestation of trees not only lessens the amount of carbon stored, it also releases carbon dioxide into the air. This is because when trees die, they release the stored carbon.
- ★ **Loss of Species:** Seventy percent of the world's plants and animals live in forests and are losing their habitats due to deforestation, according to National Geographic. Loss of habitat can lead to species extinction. It also has negative consequences for medicinal research and local populations who rely on the animals and plants in the forests for hunting and medicine.
- ★ **Water Cycle:** Trees are important to the water cycle. They absorb rainfall and produce water vapor that is released into the atmosphere. Trees also lessen the pollution in water by stopping polluted runoff.

- ★ **Soil Erosion:** Tree roots anchor the soil. Without trees the soil is free to wash or blow away, which can lead to vegetation growth problems. The WWF states that scientists estimate that a third of the world's arable land has been lost due to deforestation since 1960. After a clear cutting, cash crops like coffee, soy and palm oil are planted. Planting these types of trees can cause further soil erosion because their roots cannot hold onto the soil.
- ★ **Life Quality:** Soil erosion can also lead to silt entering lakes, streams and other water sources. This can decrease local water quality and contribute to poor health in population in the sea.

(Source: <http://www.livescience.com>)

# *Benefits of Trees*

## ❖ Trees combat climate change

Excess carbon dioxide (CO<sub>2</sub>) caused by many factors is a building up in our atmosphere and contributing to climate change. Trees absorb CO<sub>2</sub>, removing and storing the carbon while releasing the oxygen back into the air. In one year, an acre of mature trees absorbs the amount of CO<sub>2</sub> produced when you drive your car 26,000 miles.

## ❖ Trees clean the air

Trees absorb odors and pollutant gases (nitrogen oxides, ammonia, sulfur dioxide and ozone) and filter particulates out of the air by trapping them on their leaves and bark.

## ❖ Trees provide oxygen

In one year an acre of mature trees can provide enough oxygen for 18 people.

## ❖ Trees cool the streets and the city

Average temperatures in Los Angeles have risen 6°F in the last 50 years as tree coverage has declined and the number of heat-absorbing roads and buildings has increased.

Trees cool the city by up to 10°F, by shading our homes and streets, breaking up urban “heat islands” and releasing water vapor into the air through their leaves

## ❖ Trees conserve energy

Three trees placed strategically around a single-family home can cut summer air conditioning needs by up to 50 percent. By reducing the energy demand for cooling our houses, we reduce carbon dioxide and other pollution emissions from power plants.

## ❖ Trees save water

Shade from trees slows water evaporation from thirsty lawns. Most newly planted trees need only fifteen gallons of water a week. As trees transpire, they increase atmospheric moisture.

❖ Trees help prevent water pollution

Trees reduce runoff by breaking rainfall thus allowing the water to flow down the trunk and into the earth below the tree. This prevents storm water from carrying pollutants to the ocean. When mulched, trees act like a sponge that filters this water naturally and uses it to recharge groundwater supplies.

❖ Trees help prevent soil erosion

On hillsides or stream slopes, trees slow runoff and hold soil in place

❖ Trees shield children from ultra-violet rays

Skin cancer is the most common form of cancer in the United States. Trees reduce UV-B exposure by about 50 percent, thus providing protection to children on school campuses and playgrounds - where children spend hours outdoors.

❖ Trees provide food

An apple tree can yield up to 15-20 bushels of fruit per year and can be planted on the tiniest urban lot. Aside from fruit for humans, trees provide food for birds and wildlife.

❖ Trees heal

Studies have shown that patients with views of trees out their windows heal faster and with less complications. Children with ADHD show fewer symptoms when they have access to nature. Exposure to trees and nature aids concentration by reducing mental fatigue.

❖ Trees reduce violence

Neighborhoods and homes that are barren have shown to have a greater incidence of violence in and out of the home than their greener counterparts. Trees and landscaping help to reduce the level of fear.

❖ Trees mark the seasons

Is it winter, spring, summer or fall? Look at the trees.

❖ Trees create economic opportunities

Fruit harvested from community orchards can be sold, thus providing income. Small business opportunities in green waste management and landscaping arise when cities value mulching and its water-saving qualities. Vocational training for youth interested in green jobs is also a great way to develop economic opportunities from trees.

❖ Trees are teachers and playmates

Whether as houses for children or creative and spiritual inspiration for adults, trees have provided the space for human retreat throughout the ages.

❖ Trees bring diverse groups of people together

Tree plantings provide an opportunity for community involvement and empowerment that improves the quality of life in our neighborhoods. All cultures, ages, and genders have an important role to play at a tree planting or tree care event.

❖ Trees add unity

Trees as landmarks can give a neighborhood a new identity and encourage civic pride.

❖ Trees provide a canopy and habitat for wildlife

Sycamore and oak are among the many urban species that provide excellent urban homes for birds, bees, possums and squirrels.

❖ Trees block things

Trees can mask concrete walls or parking lots, and unsightly views. They muffle sound from nearby streets and freeways, and create an eye-soothing canopy of green. Trees absorb dust and wind and reduce glare.

❖ Trees provide wood

In suburban and rural areas, trees can be selectively harvested for fuel and craft wood.

❖ Trees increase property values

The beauty of a well-planted property and its surrounding street and neighborhood can raise property values by as much as 15 percent.

❖ Trees increase business traffic

Studies show that the more trees and landscaping a business district has, the more business will flow in. A tree-lined street will also slow traffic – enough to allow the drivers to look at the store fronts instead of whizzing by.

(Source: <http://www.treepeople.org>)

## *Picture Gallery*

We are using pictures only for awareness. These pictures are copyrighted  
But we don't own the copyrights.



❖ The Maldives under threat from rising water levels





## ❖ Deforestation in Brazil





❖ Drought, one of the consequences of climate change



❖ Flooding in Pakistan

## *Ending Words*

We hope that a day will come when we shall be successful in our efforts. But it is impossible without your help. We shall be waiting for your participation. We believe that

“God helps those who help themselves.”